

WHAT IS CLAIMED IS:

1. An image processing device comprising:
an image input module, which inputs image signals
having different sampling rates;
5 a filter processing module which, based on a
predetermined processing flow, carries out filter
processing by a predetermined filter factor on the
image signals which are inputted by said image input
module;
10 a filter factor setting module at which a
plurality of filter factors which are used in said
filter processing module are set; and
 a filter factor selecting module which selects,
from among the plurality of filter factors at said
15 filter factor setting module, an appropriate filter
factor in accordance with the sampling rates of the
image signals which are inputted by said image input
module and a processing flow at said filter processing
module, and supplies them to said filter processing
20 module.
2. An image processing device according to
claim 1,
 wherein the filter processing by the predetermined
filter factor at said filter processing module is
25 linear filter processing, and
 said filter factor selecting module selects, as
the appropriate filter factor, a filter factor to

switch a filter frequency characteristic in the linear filter processing by said filter processing module.

3. An image processing device according to claim 1,

5 wherein a filter factor to switch the filter frequency characteristic which is selected by said filter factor selecting module is a filter factor to switch a cutoff frequency.

4. An image processing device comprising:

10 an image input module which inputs a first image signal having a predetermined sampling rate and a second image signal having a sampling rate which is higher than the sampling rate of the first image signal;

15 a filter processing module which, based on a predetermined processing flow, carries out linear filter processing by a predetermined filter factor on the first and second image signals which are inputted by said image input module;

20 a filter factor setting module at which a plurality of filter factors which are used in said filter processing module are set; and

25 a filter factor selecting module which selects, from among the plurality of filter factors at said filter factor setting module, as a filter factor in linear filter processing by said filter processing module, an appropriate filter factor in accordance with

the sampling rates of the first and second image signals which are inputted by said image input module and a processing flow at said filter processing module, and supplies them to said filter processing module.

- 5 5. An image processing device according to
claim 4,

wherein the filter factor in the linear filter processing which is selected by said filter factor selecting module is a filter factor to switch a cutoff frequency.

- 10 6. An image processing device according to
claim 5,

wherein the filter factor in the linear filter processing which is selected by said filter factor selecting module is a filter factor to make a cutoff frequency for the first image signal lower than a cutoff frequency for the second image signal.

- 15 7. An image processing device according to
claim 5,

- 20 wherein the filter factor in the linear filter processing which is selected by said filter factor selecting module is a filter factor

25 to make a cutoff frequency for said first image signal lower than a frequency in which a main frequency component of an inputted image signal is subtracted from twice a vector which expresses a Nyquist frequency at a time of processing the first image signal, and

to make a cutoff frequency for the second image signal lower than the main frequency of the inputted image signal.

8. An image processing device according to
5 claim 5,

wherein the filter factor in the linear filter processing which is selected by said filter factor selecting module is a filter factor

10 to make a cutoff frequency for the first image signal lower than a frequency in which a number of screen lines of a manuscript which presents the first image signal is subtracted from twice a vector which expresses a Nyquist frequency at a time of processing the first image signal, and

15 to make a cutoff frequency for the second image signal lower than the number of screen lines of the manuscript.

9. An image processing device comprising:
image input means for inputting image signals
20 having different sampling rates;

filter processing means for carrying out, based on a predetermined processing flow, a filter processing by a predetermined filter factor on the image signals which are inputted by said image input means;

25 filter factor setting means at which a plurality of filter factors which are used in said filter processing means are set; and

filter factor selecting means for selecting, from among a plurality of filter factors at said filter factor setting means, an appropriate filter factor in accordance with the sampling rate of the image signal which is inputted by said image input means and a processing flow at said filter processing means, and for supplying them to said filter processing means.

10. An image processing device according to claim 9,

10 wherein the filter processing by the predetermined filter factor at said filter processing means is a linear filter processing, and

15 said filter factor selecting means selects, as the appropriate filter factor, a filter factor to switch a filter frequency characteristic in the linear filter processing by said filter processing means.

11. An image processing device according to claim 10,

20 wherein the filter factor to switch the filter frequency characteristic which is selected by the filter factor selecting means is a filter factor to switch a cutoff frequency.

12. An image processing device comprising:
image input means for inputting a first image
25 signal having a predetermined sampling rate and a second image signal having a sampling rate which is higher than the sampling rate of the first image

signal;

filter processing means for carrying out, based on
a predetermined processing flow, a linear filter
processing by a predetermined filter factor on the
first and second image signals which are inputted by
said image input means;

filter factor setting means at which a plurality
of filter factors which are used in said filter
processing means are set; and

filter factor selecting means for selecting, from
among the plurality of filter factors at said filter
factor setting means and as a filter factor in the
linear filter processing by said filter processing
means, an appropriate filter factor in accordance with
the sampling rates of the first and second image
signals which are inputted by said image input means
and a processing flow at said filter processing means,
and for supplying them to said filter processing means.

13. An image processing device according to

claim 12,

wherein the filter factor in the linear filter
processing which is selected by said filter factor
selecting means is a filter factor to switch a cutoff
frequency.

25 14. An image processing device according to
claim 13,

wherein the filter factor in the linear filter

processing which is selected by said filter factor selecting means is a filter factor to make a cutoff frequency for the first image signal lower than a cutoff frequency for the second image signal.

5 15. An image processing device according to claim 13,

 wherein the filter factor in the linear filter processing which is selected by said filter factor selecting means is a filter factor

10 to make a cutoff frequency for the first image signal lower than a frequency in which a main frequency component of an inputted image signal is subtracted from twice a vector which expresses a Nyquist frequency at a time of processing the first image signal, and

15 to make a cutoff frequency for the second image signal lower than the main frequency of the inputted image signal.

 16. An image processing device according to claim 13,

20 wherein the filter factor in the linear filter processing which is selected by said filter factor selecting means is a filter factor

 to make a cutoff frequency for the first image signal lower than a frequency in which a number of screen lines of a manuscript which presents the first image signal is subtracted from twice a vector which expresses a Nyquist frequency at a time of processing

the first image signal, and

to make a cutoff frequency for the second image signal lower than the number of screen lines of the manuscript.

5 17. A method for controlling an image processing device which carries out a filter processing on an image signal to be inputted, comprising:

inputting image signals having different sampling rates;

10 carrying out, based on a predetermined processing flow, a filter processing by a predetermined filter factor on the image signals;

setting a plurality of filter factors which are used in said filter processing; and

15 selecting, from among the plurality of filter factors, an appropriate filter factor in accordance with the sampling rates of the image signals and a processing flow, and supplying them to said filter processing.

20 18. A method for controlling an image processing device according to claim 17,

wherein the filter processing by the predetermined filter factor is linear filter processing, and

25 a filter factor to switch a filter frequency characteristic in said linear filter processing is selected as the appropriate filter factor in said filter processing.

19. A method for controlling an image processing device according to claim 18,

wherein the filter factor to switch the filter frequency characteristic is a filter factor to switch a
5 cutoff frequency.

20. A method for controlling an image processing device which carries out a filter processing on an image signal to be inputted, comprising:

10 inputting a first image signal having a predetermined sampling rate and a second image signal having a sampling rate which is higher than the sampling rate of the first image signal;

15 carrying out, based on a predetermined processing flow, a linear filter processing by a predetermined filter factor on the first and second image signals;

setting a plurality of filter factors which are used in said linear filter processing; and

20 selecting, from among the plurality of filter factors, as a filter factor in said linear filter processing, an appropriate filter factor in accordance with the sampling rates of the first and second image signals and the processing flow, and supplying them to said linear filter processing.

21. A method for controlling an image processing device according to claim 20,

wherein the filter factor in said linear filter processing is a filter factor to switch a cutoff

frequency.

22. A method for controlling an image processing device according to claim 21,

wherein the filter factor in said linear filter processing is a filter factor to make a cutoff frequency for the first image signal lower than a cutoff frequency for the second image signal.

23. A method for controlling an image processing device according to claim 21,

wherein the filter factor in said linear filter processing is a filter factor to make a cutoff frequency for the first image signal lower than a frequency in which a main frequency component of an inputted image signal is subtracted from twice a vector which expresses a Nyquist frequency at a time of processing the first image signal, and

to make a cutoff frequency for the second image signal lower than the main frequency of the inputted image signal.

24. A method for controlling an image processing device according to claim 21,

wherein the filter factor in said linear filter processing is a filter factor to make a cutoff frequency for the first image signal lower than a frequency in which a number of screen lines of a manuscript which presents the first image signal is subtracted from twice a vector which expresses a

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Nyquist frequency at a time of processing the first
image signal, and

to make a cutoff frequency for the second image
signal lower than the number of screen lines of the
5 manuscript.